

Resurrection of *Dischidia littoralis* Schltr. (Asclepiadaceae)¹

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Summary

Forster, Paul I. & Liddle, David J. (1993). Resurrection of *Dischidia littoralis* Schltr. (Asclepiadaceae). *Austrobaileya* 4(1): 113–116. *Dischidia littoralis* Schltr. is resurrected as a species distinct from *D. bengalensis* Colebr. *D. littoralis* has been commonly collected from East Sepik, New Britain, Madang, Milne Bay and Morobe Provinces in Papua New Guinea, Irian Jaya and the Aru Islands, and is newly recorded here from Torres Strait in Queensland, Australia. The species is described and illustrated and a key to the species of *Dischidia* that occur in Australia is provided. *D. bengalensis* does not occur in New Guinea.

Keywords: Asclepiadaceae, *Dischidia littoralis*, *Dischidia* – Australia, *Dischidia* – Papua New Guinea.

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Introduction

In 1989, the Australian Orchid Foundation sponsored a collecting expedition to a number of islands in Torres Strait, Queensland with the aim of documenting the orchid flora. Bruce Gray (QRS), a participant on the expedition, collected live, but sterile, material of an undetermined species of *Dischidia* from Dauan Island. This species of *Dischidia* was not considered conspecific with any of the three species of the genus currently known to occur in Australia (Forster & Liddle 1988); however, its identity was uncertain because of the lack of fertile material and difficulties in identification of species from geographically adjacent New Guinea.

Live material of this collection was subsequently flowered in cultivation in December 1991 and on examination of herbarium holdings of Asclepiadaceae at Herbarium Bogoriense (BO) in February 1992, we determined that the Gray collection was conspecific with the type of *D. littoralis* Schltr. During field studies in Papua New Guinea in July 1992, we also found this plant to be common in Madang and Morobe provinces.

Dischidia littoralis was reduced to synonymy of *D. bengalensis* Colebr. by Rintz (1980) along with other names in *Dischidia*. We disagree with Rintz's treatment of *D. littoralis*, as it differs from *D. bengalensis* in having larger elliptic-ovate leaf laminae, shorter pedicels (c. 1 mm long), the narrower corolla tube, the exposed staminal column that is much longer than the staminal corona, the lanceolate anther appendages, the filiform staminal corona lobes, and the smaller pollinaria. Although Rintz stated that *D. bengalensis* occurs in New Guinea, he did not cite any specimens of it other than the type of *D. littoralis*. Based on the available herbarium material and our own field studies we have seen no evidence for the presence of *D. bengalensis* in New Guinea and its occurrence in the flora of that island is without support.

***Dischidia littoralis* Schltr.** in K. Schum. & Lauterb., Nachträge Fl. Deutsch. Südsee 359 (1905). **Type:** Papua New Guinea, NEW BRITAIN PROVINCE: Massawa, R. Schlechter 13722 (holo: B, n.v.; iso: BO!).

Epiphytic succulent vine, foliage with white-mealy wax covering; latex white. Stems cylindrical, glabrous; internodes up to 120 mm long and 2 mm diameter, adventitious roots common on older stems. Leaves petiolate; lamina elliptic-ovate, 18–30 mm long, 8–17 mm wide, discolorous, glabrous, venation obscure; upper surface with dense white-mealy wax covering;

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lower surface pale-green with sparse wax covering; tip acute; base cuneate; petiole 1–2 mm long, 1–1.5 mm diameter; collectors absent from lamina base. Cyme racemiform, up to 5 mm long; peduncle 1–4 mm long and c. 2 mm diameter, glabrous and without wax covering; bracts ovate, 0.2–0.4 mm long, 0.2–0.4 mm wide, glabrous, ciliate. Flowers 3–3.2 mm long, c. 2 mm diameter; pedicels 1–1.5 mm long, 0.5–0.8 mm diameter, glabrous. Sepals lanceolate to broadly ovate, 0.8–1 mm long, 0.5–0.7 mm wide, glabrous or with scattered indumentum, ciliate. Corolla globose-urceolate, cream; tube 1.5–2 mm long, 2–2.5 mm diameter, glabrous; lobes lanceolate, fleshy, 1.5–2 mm long, 0.8–0.9 mm wide, externally glabrous, internally glabrous except for a small patch of hairs at base above and obstructing the tube entrance. Staminal corona comprising 5 lobes attached to base of gynostegium; each lobe 0.6–0.8 mm long, 0.5–0.8 mm wide, terminated by an irregularly truncate tip and with a recurved lateral lobule on either side. Staminal column 1–1.5 mm long, 1–1.3 mm diameter; anther appendages lanceolate 0.5–0.6 mm long, 0.3–0.5 mm wide; alar fissure 0.2–0.5 mm long. Style-head globose-conical, 0.5–0.7 mm diameter. Pollinaria 0.45–0.48 mm long, 0.27–0.41 mm wide; pollinia ellipsoid, 0.23–0.26 mm long, 0.09–0.14 mm wide; corpus-culum ellipsoid-obloid, 0.14–0.16 mm long and c. 0.05 mm wide; caudicles winged, 0.22–0.27 mm long, 0.09–0.11 mm wide. Fruit a fusiform follicle, 40–60 mm long, 5–6 mm diameter. Seed obloid, c. 0.8 mm long, 2.5–2.6 mm wide, tan; coma c. 20 mm long, white. **Fig. 1.**

Selected specimens: Indonesia. Aru Islands. P. Kobroor, Namadoeboele, nearly 15 km W from Dosinamalaoe, Jun 1938, *Buwalda* 5206 (BO). Irian Jaya. Bernhard Camp, Idenburg River, Apr 1939, *Brass* 14048 (BRI, CANB).

Papua New Guinea. MANUS PROVINCE: Pelikawa, SW Manus, 2°07'S, 146°44'E, Jun 1971, *Stone & Streimann* LAE53728 (LAE). EAST SEPIK PROVINCE: Leitre Village, 2°50'S, 141°35'E, Mar 1964, *Sayers* NGF19566 (BRI, LAE); Passam, 3°48'S, 148°35'E, Apr 1989, *Hawkeswood* [AQ470256] (BRI). NEW BRITAIN PROVINCE: Matanakunei, 4°52'S, 151°43'E, Mar 1968, *Ridsdale & Katik* NGF36774 (LAE). MADANG PROVINCE: Bunapas Mission, 4°13'S, 144°41'E, Jul 1992, *Forster* 10980 & *Liddle* (BRI, L, LAE, QRS); Headwaters of Dom River, 4°58'S, 145°45'E, Jul 1992, *Forster* 10776 & *Liddle* (BRI, LAE); Gogol River Headwaters, 5°05'S, 145°27'E, Jul 1992, *Forster* 11081 & *Liddle* (BRI, LAE); Mis, 3 km NW of Madang, 5°12'S, 145°46'E, Jun 1992, *Forster* 10765 & *Liddle* (BRI). MOROBE PROVINCE: c. 19 miles [30.4 km] W of Lae, 6°37'S, 146°45'E, Jan 1962, *Hartley* 9793 (LAE); University of Technology, Lae, 6°38'S, 146°58'E, Jul 1992, *Forster* 10990 & *Liddle* (A, B, BRI, DNA, K, L, LAE, MEL, NY, QRS); 11 km from Markham River Bridge along road to Labu, 6°45'S, 146°54'E, Jul 1992, *Forster* 11071 & *Liddle* (BRI, L, LAE); 49 km along road to Bulolo, off Lae to Nadzeb road, 6°49'S, 146°38'E, Jul 1992, *Forster* 11064 & *Liddle* (BRI, LAE). WESTERN PROVINCE: Lake Daviumbu, Middle Fly River, Aug 1936, *Brass* 7575 (BRI, LAE); Pangoa Airstrip, Lake Murray, 8°05'S, 141°15'E, Mar 1968, *Millar* NGF35416 (BRI, LAE). CENTRAL PROVINCE: Kubuna, Nov 1933, *Brass* 5647 (BRI). MILNE BAY PROVINCE: Sewa Bay, Normanby Island, 10°00'S, 150°55'E, Oct 1971, *Streimann & Lelean* LAE51950 (BRI, LAE). **Australia.** Queensland. COOK DISTRICT: Mt Cornwallis, Dauan Island, 9°26'S, 142°32'E, Feb 1989, *Gray* 5031 (QRS); cultivated at Emerald Creek near Mareeba (ex plant collected on Mt Cornwallis, Dauan Island), Dec 1991, *Liddle* IML909 (BRI).

Distribution and habitat: Collections of this plant have been made in Central, East Sepik, Madang, Manus, Morobe, New Britain, Milne Bay and Western Provinces in Papua New Guinea, in Irian Jaya and the Aru Islands in Indonesia and on Dauan Island, Torres Strait in Queensland. Plants grow as epiphytes in lowland rainforest and may be common on street trees in villages and towns in Madang and Morobe provinces.

Notes: A key to distinguish the species of *Dischidia* in Australia is given here.

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1. Mature leaves often pitcher-like, corolline corona present at base of corolla lobes **D. major**
Mature leaves flattened, never pitcher-like; corolline corona absent 2
 2. Leaf lamina green to red-brown, not mealy-white, variegated on upper surface **D. ovata**
Leaf lamina mealy-white, not variegated on upper surface 3

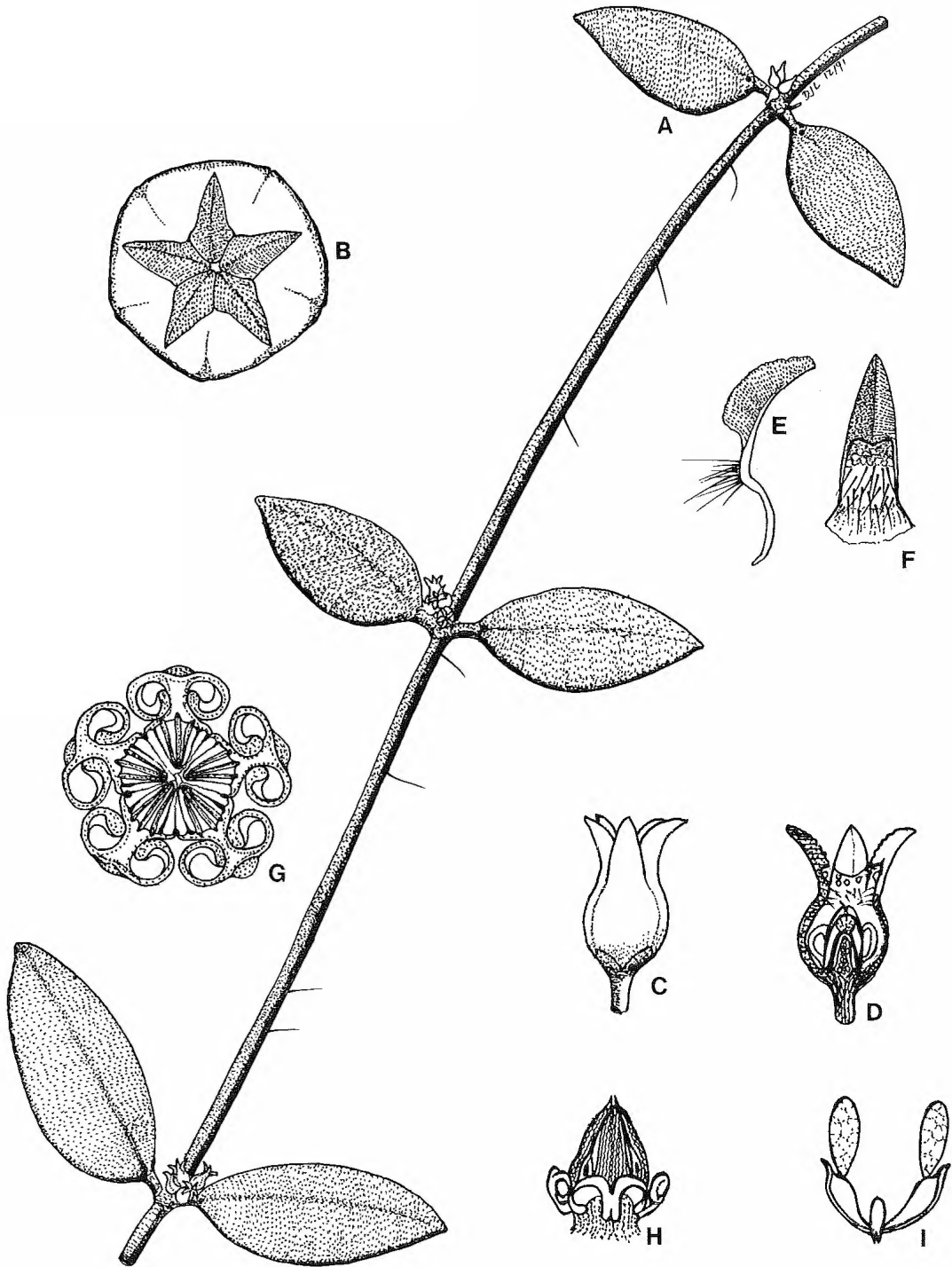


Fig. 1. *Dischidia littoralis*: A. habit of flowering stem $\times 1$. B. face view of flower $\times 20$. C. side view of flower $\times 5$. D. half flower $\times 5$. E. side view of corolla lobe showing hairs at base $\times 10$. F. internal view of corolla lobe showing hairs at base $\times 10$. G. face view of gynostegium and staminal corona $\times 20$. H. side view of gynostegium and staminal corona $\times 10$. I. pollinarium $\times 40$. All drawn from live material of Liddle IML909. Del. D.J. Liddle.

3. Leaf lamina orbicular, 7–14 mm long; corolla lobes ovate **D. nummularia**
 Leaf lamina elliptic-ovate, 18–30 mm long; corolla lobes lanceolate **D. littoralis**

Conservation status: With respect to the Australian flora, *D. littoralis* is an endangered and poorly collected plant. An appropriate conservation coding is 2V+ (cf. Briggs & Leigh 1988). In New Guinea it appears to be common and widespread.

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